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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,190	05/06/2005	Shuichi Kawasaki	1217-051112	5305
28289	7590	02/05/2008		
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			EXAMINER PATEL, ISHWARBHAI B	
			ART UNIT 2841	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/534,190	Applicant(s) KAWASAKI, SHUICHI	
	Examiner Ishwar (I. B.) Patel	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2, 10, 12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 12 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/31/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. This action is in response to amendment filed on October 31, 2007.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 10, 12, 14, 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

Regarding the amended claim 2, the newly added limitation recites "wherein an area occupied by **one film carrier** is substantially the same as an area of an electronic part to be mounted on the **film carrier tape**." However, how the film "carrier," "film carrier tape" and "the wiring patterns," are related is not recited in the claims. As a result the claim structure is unclear.

Claims 10, 12, 14, 15 and 16 depend upon claim 2 and inherit the same deficiency.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 2, 12, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshino (US Patent No. 6,965,162).

**Regarding claim 2,** Yoshino, as best understood with reference to 112 second rejection, in figure 1-4 discloses film carrier tape for mounting an electronic part, comprising an elongated insulating film (16) having a plurality of wiring patterns (wiring pattern 20 in regions 18) formed on a surface of the insulating film, said wiring patterns being made of a conductive metal (copper, column 5, line 3-10 ) and at least two of said wiring patterns being arranged side by side in the width direction (see figure) of the elongated insulating film, wherein: the wiring patterns are each independently covered with a solder resist layer (21a) except a connecting terminal portion, and the solder resist layer formed on each surface of the wiring patterns is divided into plural sections (see figure 4), wherein an area occupied by one film carrier is substantially the same as an area of an electronic part to be mounted on the film carrier tape (one component is mounted in each of the regions 18, column 5, line 10-20). It is to be noted that

"substantial" means largely but not wholly that which is specified, Merriam Webster's Collegiate Dictionary, 10th edition. Also, it is further to be noted that a film carrier tape **for mounting** an electronic part is recited and not the component on the carrier); and wherein in each film carrier, a distance between one section and its adjacent section of the divided solder resist layer is in the range of 20  $\mu$  to 3 mm (0.7mm, column 5, line 30-35).

**Regarding claim 12**, Yoshino further discloses the elongated insulating film has a thickness of not more than 75  $\mu$ m (50  $\mu$ m, column 4, line 55-60).

**Regarding claim 14**, Yoshino further discloses an opposite surface to the surface of the insulating film where the wiring pattern of the film carrier for mounting an electronic part is formed is designed so that metal balls to be electrically connected outside the film carrier can be arranged (electrode 15, see figure 1).

**Regarding claim 15**, Yoshino further discloses the solder resist layer formed on the surface of the wiring pattern has an average thickness, except non-solder resist area, of 3 to 50  $\mu$ m after curing (12  $\mu$ m, column 5, line 25-35).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino.

**Regarding claim 10**, Yoshino discloses all the features of the claimed invention as applied to claim 2 above including the solder resist layer is formed on each surface of the wiring patterns but does not disclose the solder resist layer is divided into 2 to 16 sections. Yoshino in the embodiment of figure 1-4 discloses the resist layer divided in multiple sections, more than 16. However, Yoshino in the embodiment of figure 5C discloses the resist layer divided in four section and further recites that the same result as obtained by the embodiment of figure 4 can be achieved, i. e. the warp of the insulating film 16 due to curing contraction, etc. of the insulation pattern 24 can be reduced, (column 5, line 50-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to provide the structure of Yoshino with the solder resist layer divided into four sections, as taught by the embodiment of Figure 5C of Yoshino, in order to reduce the warping.

**Regarding claim 16**, the modified structure of Yoshino further discloses the solder resist layer is formed in a region of not less than 20% of the wiring patterns except the connecting terminal portions (see figure 5C).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wada (US Patent No. 6,602,734) in figure 1 disclose plurality of wiring patterns on a flexible substrate 1A.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ishwar (I. B.) Patel whose telephone number is (571) 272 1933. The examiner can normally be reached on M-F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272 2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ibp  
January 30, 2008

  
Ishwar (I. B.) Patel  
Primary Examiner  
Art Unit: 2841